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ABSTRACT

The Moche Cost Analysis of Public Education (CAPE) formula was developed to identify total and per pupil costs of regular elementary education, regular secondary education, elementary special education, and secondary special education. Costs are analyzed across five components: (1) comprehensive costs (including transportation and supplemental expenses); (2) service costs (maintenance/operations and supplemental expenses; (3) administrative costs; (general, level-specific, and site-based costs); (4) support costs (assessment, direct services, and related services); and (5) instructional costs (special education, regular education, and supplemental expenses). The CAPE formula was applied to 1992-93 cost data from three southwest Virginia school systems. The study's conclusions included the following: special education annual per pupil expenditures averaged 1.2 to 1.6 times the cost of regular education per pupil expenditures; per pupil costs of inclusive programming were almost twice as great as costs of traditional mainstreaming, but 30 percent to 60 percent less costly than segregated special education services; the proportion of time students receive special education services is not affected by service delivery model; staffing patterns are influenced by service delivery environments; and per pupil expenditures for special education are more costly at the secondary than the elementary level. (DB)

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Moche CAPE Formula:

COST ANALYSIS OF PUBLIC EDUCATION

CEC ANNUAL CONVENTION
WED., APRIL 5, 1995 - SUN., APRIL 9, 1995

SESSION: THURS., APRIL 6, 1995
3:45 P.M. - 4:45 P.M.

PRESENTER: JOANNE SPIERS MOCHE
SPECIAL EDUCATION COORDINATOR/
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Moche CAPE Formula: Cost Analysis of Public Education

Joanne Spiers Moche (1995)

Abstract

The Moche Cost Analysis of Public Education (CAPE) formula identifies total and per pupil costs of regular elementary education, regular secondary education, elementary special education, and secondary special education. Costs are analyzed across five components: Comprehensive Costs, Service Costs, Administrative Costs, Support Costs, and Instructional Costs.

The CAPE formula was applied to 1992-93 cost data from three southwest Virginia school systems as Moche's dissertation research in fulfillment of requirements for the degree of Doctor of Education in Administration and Supervision of Special Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

CAPE Components

I. Comprehensive Cost Component
   - A. Transportation Input Center
   - B. Supplemental Expenses Input Center

II. Service Cost Component
   - A. Maintenance/Operations Input Center
   - B. Supplemental Expenses Input Center

III. Administrative Cost Component
   - A. General Central Input Center
   - B. Level-specific Input Center
   - C. Site-based Input Center

IV. Support Cost Component
   - A. Assessment Input Center
   - B. Direct Services Input Center
   - C. Related Services Input Center

V. Instruction Cost Component
   - A. Special Education Input Center
   - B. Regular Education Input Center
   - C. Supplemental Expenses Input Center

Description of CAPE Cost Components

I. Comprehensive Cost Component

The Comprehensive Cost Component contains costs attributed to all levels of school operation which cannot be directly allocated to one particular K-12 academic program or program level and do not fall within a specific function category . These include costs of special and regular transportation, allocated equally among all students eligible to receive transportation services. Supplemental expenses include costs of depreciation (employing Levin's annualization formula, 1983), program initiation or start-up costs, and adult education, allocated equally among all students in Average Daily Membership (ADM).

II. Service Cost Component

The Service Cost Component contains costs associated with repair and maintenance of school properties as well as operations expenses of utilities, communications, insurance, leases, and rentals. Supplemental expenses include food services, facilities and capital outlay.

Total costs are calculated and allocated equally among all students in ADM.

III. Administrative Cost Component

Administrative costs involve general central, level specific, and site-based costs of school administration.

General Central Administrative Costs include those costs associated with the positions of Superintendent, Assistant Superintendent(s), general directors, general supervisors, school board services, and clerical and technical positions associated with central office system-wide school administration. It does include costs of the position of special education director. It does not include costs associated with middle-level special education administrative personnel, level-specific positions such as elementary coordinator, or administrative costs associated with transportation and adult administration.

Level-specific administrative costs are those costs directly attributable to elementary or secondary administration. Middle-level special education administration costs are included in this input center.

Site-based administrative costs are those costs attributable to the office of principal. These include costs associated with the positions of principal, assistant principal, and building-level clerical and technical services positions involved in building-level administration and allocated to students by elementary and secondary academic division.

IV. Support Cost Component

Support Costs are those costs attributable to activities which are primarily non-instructional and are available to all students in a given program.

Assessment costs are those costs attributable to assessment and evaluation activities within general and special education. Assessment costs for initial assessment are allocated equally across all students in ADM; re-evaluation costs for students previously found eligible for special education services are allocated across all eligible special education students.

Direct Services costs are those costs associated with instructional support, including guidance personnel, attendance personnel, social workers, athletics, and other supplemental pay positions, allocated euqally across all students in ADM.

Related Services costs include those costs of services provided to disabled students which are necessary for eligible students to participate in and benefit from special education services. These costs are allocated equally among all special education students.

V. Instruction Cost Component

Instructional costs are those costs associated with classroom instructional activities attributable to positions of teachers, instructional aides, and teaching assistants.

Regular education instructional costs are associated with regular homeroom or classroom personnel, including but not limited to regular instructional personnel, itinerant art, music, and physical education personnel, Chapter I, and vocational personnel.

Special education costs are those costs associated with activities of instructional personnel in all special education service delivery environments.

Instructional costs are calculated by service delivery environments based upon teacher FTEs, and allocated to students based upon student FTEs per environment. Special education costs are broken down by disability category and intensity of services.

Supplemental instructional expenses include costs of program initiation, textbooks, tuition, and summer school.

Study Conclusions

1. Special education annual per pupil expenditures average 1.2 to 1.6 times the costs of regular education annual per pupil expenditures.

2. Per pupil costs of inclusive programming, based upon student FTEs in environments, are almost twice as great as instructional costs of traditional mainstreaming, but 30% to 60% less costly than segregated special education services.

3. The proportion of time students receive special education services is not affected by service delivery model.

4. Staffing patterns are influenced by service delivery environments. Inclusive programs were staffed by a greater number of teaching assistants, whereas traditional segregated programs reflected staffing patterns which primarily involved teachers.

5. Inclusive programming does not significantly increase or decrease special education expenditures. Inclusive programming involes a reallocation of expenditures rather than significant monetary changes.

6. Per pupil expenditures for special education are more costly at the secondary than the elementary level.